

ABSTRACT OF THE DISCLOSURE

To provide a voltage regulator that operates even when an input power source voltage and an output voltage are small, that is, even when the difference between input and output voltages is small. The voltage regulator includes: a reference voltage source for outputting a reference voltage; a voltage dividing circuit for dividing an output voltage; a feedback voltage terminal to which a voltage obtained by dividing the output voltage is outputted; an error amplifier to which the reference voltage and a voltage from the feedback voltage terminal are inputted; a first transistor of a first conductivity type, which is connected in series between the voltage dividing circuit and an input power source terminal; and an overcurrent limiting circuit for outputting a signal for controlling the first transistor in response to an output of the error amplifier, and in the voltage regulator, the overcurrent limiting circuit includes a differential pair for outputting the signal for controlling the first transistor in response to a signal inputted to the error amplifier.